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SEQUENCE LISTING

<110> GOLETZ, STEFFEN
DANIELCZYK, ANTJE
KARSTEN, UWE
RAVN, PETER
STAHN, RENATE
CHRISTENSEN, PETER ASTRUP

<120> TUMOR-SPECIFIC RECOGNITION MOLECULES

<130> VOSSM-0002

<140> 10/536,834
<141> 2005-05-31

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<151> 2003-12-01

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<151> 2002-11-29

<160> 152

<170> PatentIn Ver. 3.5

<210> 1
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<400> 1
Asn Tyr Trp Leu Gly
1 5

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<220>
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<400> 2
Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15
Gly

<210> 3
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3
Asp Ile Tyr Pro Gly Gly Ser Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 4
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4
Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr
1 5 10

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<213> Artificial Sequence

<220>
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<400> 5
Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr
1 5 10

<210> 6
<211> 8
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 6
Tyr Asp Asn His Tyr Phe Asp Tyr
1 5

<210> 7
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 7
Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
1 5 10 15

<210> 8
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<220>
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<400> 8
Arg Ser Ser Gln Ser Leu Leu His Ser Asn Gly Asn Thr Tyr Leu His
1 5 10 15

<210> 9
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 9
Lys Ser Ser Gln Ser Leu Leu His Ser Asp Gly Lys Thr Tyr Leu Tyr
1 5 10 15

<210> 10
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<212> PRT
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<220>
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<400> 10
Lys Val Ser Asn Arg Phe Ser
1 5

<210> 11
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<220>
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<400> 11
Glu Val Ser Ser Arg Phe Ser
1 5

<210> 12
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 12
Phe Gln Gly Ser His Val Pro Tyr Thr
1 5

<210> 13
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<220>
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<400> 13
Ser Gln Ser Thr His Val Pro Tyr Thr
1 5

<210> 14
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<220>
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<400> 14
Asn Tyr Trp Ile Gly
1 5

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<220>
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<400> 15
Asn Tyr Trp Met Gly
1 5

<210> 16
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<220>
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<400> 16
Asn Tyr Trp Trp Gly
1 5

<210> 17
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<220>
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<400> 17
Asn Tyr Trp Val Gly
1 5

<210> 18
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<220>
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<400> 18
Asp Ile Tyr Pro Gly Gly Asp Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 19

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 19

Asp Ile Tyr Pro Gly Gly Asn Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 20

<211> 17

<212> PRT

<213> Artificial Sequence

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peptide

<400> 20

Asp Ile Tyr Thr Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 21

<211> 17

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
peptide

<400> 21

Asp Ile Tyr Thr Gly Gly Asp Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 22

<211> 17

<212> PRT

<213> Artificial Sequence

<220>
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peptide

<400> 22
Asp Ile Tyr Thr Gly Gly Asn Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 23
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 23
Asp Ile Tyr Thr Gly Gly Ser Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 24
<211> 17
<212> PRT
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<220>
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peptide

<400> 24
Asp Ile Tyr Ala Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 25
<211> 17
<212> PRT
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<220>
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peptide

<400> 25
Asp Ile Tyr Ala Gly Gly Asp Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 26
<211> 17
<212> PRT
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<220>
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<400> 26
Asp Ile Tyr Ala Gly Gly Asp Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 27
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
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<400> 27
Asp Ile Tyr Ala Gly Gly Ser Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 28
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 28
Arg Pro Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
1 5 10 15

<210> 29
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 29
Arg Pro Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
1 5 10 15

<210> 30
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 30
Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Phe Glu
1 5 10 15

<210> 31
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 31
Arg Pro Ser Gln Ser Leu Val His Ser Asn Gly Asn Thr Tyr Leu Glu
1 5 10 15

<210> 32
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 32
Arg Pro Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Phe Glu
1 5 10 15

<210> 33
<211> 16
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<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 33

Arg Ser Ser Gln Ser Leu Val His Ser Asn Gly Asn Thr Tyr Phe Glu
1 5 10 15

<210> 34

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 34

Arg Pro Ser Gln Ser Leu Leu His Ser Asn Gly Asn Thr Tyr Leu His
1 5 10 15

<210> 35

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 35

Arg Ser Ser Gln Ser Ile Leu His Ser Asn Gly Asn Thr Tyr Leu His
1 5 10 15

<210> 36

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

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peptide

<400> 36

Arg Ser Ser Gln Ser Leu Leu His Ser Asn Gly Asn Thr Tyr Phe His
1 5 10 15

<210> 37

<211> 16

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 37
Arg Pro Ser Gln Ser Ile Leu His Ser Asn Gly Asn Thr Tyr Leu His
1 5 10 15

<210> 38
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 38
Arg Pro Ser Gln Ser Leu Leu His Ser Asn Gly Asn Thr Tyr Phe His
1 5 10 15

<210> 39
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 39
Arg Ser Ser Gln Ser Ile Leu His Ser Asn Gly Asn Thr Tyr Phe His
1 5 10 15

<210> 40
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 40
Lys Pro Ser Gln Ser Leu Leu His Ser Asp Gly Lys Thr Tyr Leu Tyr
1 5 10 15

<210> 41
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 41
Lys Ser Ser Gln Ser Ile Leu His Ser Asp Gly Lys Thr Tyr Leu Tyr
1 5 10 15

<210> 42
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 42
Lys Ser Ser Gln Ser Leu Leu His Ser Asp Gly Lys Thr Tyr Phe Tyr
1 5 10 15

<210> 43
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 43
Lys Pro Ser Gln Ser Ile Leu His Ser Asp Gly Lys Thr Tyr Leu Tyr
1 5 10 15

<210> 44
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 44
Lys Pro Ser Gln Ser Ile Leu His Ser Asp Gly Lys Thr Tyr Leu Tyr
1 5 10 15

<210> 45
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 45
Lys Ser Ser Gln Ser Ile Leu His Ser Asp Gly Lys Thr Tyr Phe Tyr
1 5 10 15

<210> 46
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 46
Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 47
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 47
Gln Val Gln Leu Lys Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45

 Gly Asp Ile Tyr Pro Gly Gly Ser Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

 Ala Arg Tyr Asp Asn His Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Thr
 100 105 110

 Leu Thr Val Ser Ser
 115

<210> 48
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 48
 Gln Val Gln Leu Lys Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15

 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45

 Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

 Thr Thr Leu Thr Val Ser Ser
 115

<210> 49
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 49
Glu Val Lys Leu Val Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Ser Val Thr Val Ser Ser
115

<210> 50
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 50
Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60

Lys	Gly	Lys	Ala	Thr	Leu	Thr	Ala	Asp	Thr	Ser	Ser	Ser	Ser	Thr	Ala	Tyr
65					70					75						80
Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Phe	Cys	
					85					90					95	
Ala	Tyr	Tyr	Asp	Ala	Ala	Gly	Pro	Trp	Phe	Ala	Tyr	Trp	Gly	Gln	Gly	
					100					105					110	
Thr	Thr	Val	Thr	Val	Ser	Ser										
					115											

<210> 51
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 51																
Glu	Val	Lys	Leu	Val	Glu	Ser	Gly	Ala	Glu	Leu	Val	Arg	Pro	Gly	Thr	
1				5					10						15	

Ser	Val	Lys	Ile	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Asn	Tyr
									25						30

Trp	Leu	Gly	Trp	Val	Lys	Gln	Arg	Pro	Gly	His	Gly	Leu	Glu	Trp	Ile
					35			40							45

Gly	Asp	Ile	Tyr	Pro	Gly	Gly	Tyr	Thr	Asn	Tyr	Asn	Glu	Lys	Phe	
					50			55				60			

Lys	Gly	Lys	Ala	Thr	Leu	Thr	Ala	Asp	Thr	Ser	Ser	Ser	Ser	Thr	Ala	Tyr
65					70					75						80

Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Phe	Cys
					85					90					95

Ala	Tyr	Tyr	Asp	Ala	Ala	Gly	Pro	Trp	Phe	Ala	Tyr	Trp	Gly	Gln	Gly
					100					105					110

Thr	Thr	Val	Thr	Val	Ser	Ser									
					115										

<210> 52
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 52
 Gln Val Gln Leu Lys Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Leu Val Thr Val Ser Ala
 115

<210> 53
<211> 119
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 53
 Gln Val Gln Leu Lys Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 54
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 54
Gln Val Thr Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Ser Val Thr Val Ser Ser
115

<210> 55
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 55
Gln Val Gln Leu Lys Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Ser Val Thr Val Ser Ser
 115

<210> 56
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 56
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 57
<211> 119
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 57

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
65 70 75 80Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
100 105 110Thr Leu Val Thr Val Ser Ser
115

<210> 58

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 58

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
65 70 75 80Met Gln Leu Ser Arg Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 59
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 59
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 60
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 60
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Arg Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 61
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 61
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 62
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 62

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80Met Glu Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
100 105 110Thr Thr Val Thr Val Ser Ser
115

<210> 63

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 63

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 64
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 64
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 65
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 65
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Leu Val Thr Val Ser Ser
 115

<210> 66
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 66
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Thr Val Thr Val Ser Ser
 115

<210> 67

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 67

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15Ser Val Lys Val Pro Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
100 105 110Thr Leu Val Thr Val Ser Ser
115

<210> 68

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 68

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60

Lys	Gly	Lys	Ala	Thr	Leu	Thr	Ala	Asp	Thr	Ser	Thr	Ser	Thr	Ala	Tyr
65					70					75					80

Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
					85					90					95

Ala	Tyr	Tyr	Asp	Ala	Ala	Gly	Pro	Trp	Phe	Ala	Tyr	Trp	Gly	Gln	Gly
					100					105				110	

Thr	Leu	Val	Thr	Val	Ser	Ser									
					115										

<210> 69
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 69															
Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1					5					10					15

Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Asn	Tyr
										25					30

Trp	Leu	Gly	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Ile
						35			40						45

Gly	Asp	Ile	Tyr	Pro	Gly	Gly	Tyr	Thr	Asn	Tyr	Asn	Glu	Lys	Phe
						50			55				60	

Lys	Gly	Lys	Ala	Thr	Leu	Thr	Ala	Asp	Thr	Ser	Thr	Ser	Thr	Ala	Tyr
65					70					75					80

Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
					85					90					95

Ala	Tyr	Tyr	Asp	Ala	Ala	Gly	Pro	Trp	Phe	Ala	Tyr	Trp	Gly	Gln	Gly
					100					105				110	

Thr	Leu	Val	Thr	Val	Ser	Ser									
					115										

<210> 70
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 70
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Thr Val Thr Val Ser Ser
 115

<210> 71
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 71
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 72
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 72
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Phe Cys
85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 73
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 73
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Ser
 115

<210> 74

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 74

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Ser
 115

<210> 75

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 75

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60Lys Gly Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Phe Cys
85 90 95Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
100 105 110Thr Leu Val Thr Val Ser Ser
115

<210> 76

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 76

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60Lys Gly Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 77
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 77
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 78
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 78
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 79

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 79

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
 65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 80

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 80

Asp Ile Gln Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
1 5 10 15Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
20 25 30Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
85 90 95Ser His Val Pro Tyr Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

Arg Ala

<210> 81

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 81

Asp Ile Val Ile Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
1 5 10 15Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
20 25 30Asn Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser
85 90 95

Thr His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 100 105 110

Arg Ala

<210> 82
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 82
 Asp Ile Gln Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1 5 10 15

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
 20 25 30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
 85 90 95

Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Leu Lys
 100 105 110

Arg Ala

<210> 83
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 83
 Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1 5 10 15

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
 20 25 30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60

Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
 85 90 95

Ser His Val Pro Tyr Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys
 100 105 110

Arg Ala

<210> 84

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 84

Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1 5 10 15

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
 20 25 30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60

Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
 85 90 95

Ser His Val Pro Tyr Thr Phe Gly Gly Thr Lys Leu Glu Leu Lys
 100 105 110

Arg Ala

<210> 85

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 85

Asp Ile Gln Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
20 25 30Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
85 90 95Ser His Val Pro Tyr Thr Phe Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

Arg Ala

<210> 86

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 86

Asp Ile Gln Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
20 25 30Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
 85 90 95

Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105 110

Arg Ala

<210> 87
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 87
Asp Ile Gln Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
 20 25 30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45

Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
 85 90 95

Ser His Val Pro Tyr Thr Phe Gly Gly Thr Lys Val Glu Ile Lys
 100 105 110

Arg Ala

<210> 88
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 88

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly
1				5					10				15		

Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser
				20				25					30		

Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser
					35			40			45				

Pro	Gln	Leu	Leu	Ile	Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro
					50			55			60				

Asp	Arg	Phe	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile		
	65				70				75			80			

Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly
					85				90			95			

Ser	His	Val	Pro	Tyr	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys
					100				105			110			

Arg Ala

<210> 89

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 89

Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly
1				5					10				15		

Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser
				20				25					30		

Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser
					35			40			45				

Pro	Lys	Leu	Leu	Ile	Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro
					50			55			60				

Asp	Arg	Phe	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile		
	65				70				75			80			

Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly
					85				90			95			

Ser	His	Val	Pro	Tyr	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys
					100				105			110			

Arg Ala

<210> 90
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 90
 Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
 20 25 30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60

Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
 85 90 95

Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105 110

Arg Ala

<210> 91
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 91
 Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
 20 25 30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45

Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
 85 90 95

Ser His Val Pro Tyr Thr Phe Gly Gly Thr Lys Val Glu Ile Lys
 100 105 110

Arg Ala

<210> 92

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 92

Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
 20 25 30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45

Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
 85 90 95

Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105 110

Arg Ala

<210> 93

<211> 114

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 93
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
20 25 30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45
Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60
Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
85 90 95
Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110
Arg Ala

<210> 94
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 94
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
1 5 10 15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
20 25 30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45
Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60
Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
85 90 95

Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105 110

Arg Ala

<210> 95

<211> 276

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 95

Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Ser Ala Ser Ser Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Gly Gly Ser Ala Arg Asp Ile Gln Met Thr Gln Thr
 130 135 140

Pro Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys
 145 150 155 160

Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
 165 170 175

Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys
 180 185 190

Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly
 195 200 205

Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp
 210 215 220

Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe
 225 230 235 240

Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Ala Ala His His His
 245 250 255

His His His Gly Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 260 265 270

Asn Gly Ala Ala
 275

<210> 96

<211> 267

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 96

Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Ser Ala Ser Ser Gly Ser Gly Ser Ser Ala
 115 120 125

Asp Ile Gln Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 130 135 140

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
 145 150 155 160

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 165 170 175

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 180 185 190

 Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 195 200 205

 Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
 210 215 220

 Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 225 230 235 240

 Arg Ala Ala Ala His His His His His Gly Ala Ala Glu Gln Lys
 245 250 255

 Leu Ile Ser Glu Glu Asp Leu Asn Gly Ala Ala
 260 265

<210> 97
 <211> 266
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 97
 Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15

 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45

 Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

 Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

 Thr Thr Val Thr Val Ser Ser Ala Ser Ser Gly Gly Ser Ser Ala Asp
 115 120 125

 Ile Gln Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly Asp
 130 135 140

 Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn
 145 150 155 160

Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro
 165 170 175

 Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp
 180 185 190

 Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser
 195 200 205

 Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser
 210 215 220

 His Val Pro Tyr Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys Arg
 225 230 235 240

 Ala Ala Ala His His His His Gly Ala Ala Glu Gln Lys Leu
 245 250 255

 Ile Ser Glu Glu Asp Leu Asn Gly Ala Ala
 260 265

<210> 98
 <211> 265
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 98
 Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15

 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45

 Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

 Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

 Thr Thr Val Thr Val Ser Ser Ala Ser Ser Gly Ser Ser Ala Asp Ile
 115 120 125

Gln Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly Asp Gln
 130 135 140

 Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly
 145 150 155 160

 Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys
 165 170 175

 Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg
 180 185 190

 Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg
 195 200 205

 Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His
 210 215 220

 Val Pro Tyr Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala
 225 230 235 240

 Ala Ala His His His His His Gly Ala Ala Glu Gln Lys Leu Ile
 245 250 255

 Ser Glu Glu Asp Leu Asn Gly Ala Ala
 260 265

<210> 99
 <211> 264
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 99
 Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15

 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45

 Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

 Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Ser Ala Ser Ser Ser Ser Ala Asp Ile Gln
 115 120 125
 Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala
 130 135 140
 Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn
 145 150 155 160
 Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu
 165 170 175
 Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe
 180 185 190
 Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val
 195 200 205
 Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val
 210 215 220
 Pro Tyr Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Ala
 225 230 235 240
 Ala His His His His His Gly Ala Ala Glu Gln Lys Leu Ile Ser
 245 250 255
 Glu Glu Asp Leu Asn Gly Ala Ala
 260

<210> 100
 <211> 263
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 100
 Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Ser Ala Ser Ser Ala Asp Ile Gln Met
 115 120 125

Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser
 130 135 140

Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr
 145 150 155 160

Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu
 165 170 175

Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser
 180 185 190

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu
 195 200 205

Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro
 210 215 220

Tyr Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Ala Ala
 225 230 235 240

His His His His His Gly Ala Ala Glu Gln Lys Leu Ile Ser Glu
 245 250 255

Glu Asp Leu Asn Gly Ala Ala
 260

<210> 101

<211> 262

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 101

Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys	Gly	Lys	Ala	Thr	Leu	Thr	Ala	Asp	Thr	Ser	Ser	Ser	Ser	Thr	Ala	Tyr
65					70					75						80
Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Phe	Cys	
					85					90					95	
Ala	Tyr	Tyr	Asp	Ala	Ala	Gly	Pro	Gly	Phe	Ala	Tyr	Trp	Gly	Gln	Gly	
					100					105					110	
Thr	Thr	Val	Thr	Val	Ser	Ser	Ala	Ser	Ser	Ala	Asp	Ile	Gln	Met	Thr	
					115					120					125	
Gln	Thr	Pro	Leu	Ser	Leu	Pro	Val	Ser	Leu	Gly	Asp	Gln	Ala	Ser	Ile	
					130					135					140	
Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	
					145					150					160	
Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser	Pro	Lys	Leu	Leu	Ile	
					165					170					175	
Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	
					180					185					190	
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala	
					195					200					205	
Glu	Asp	Leu	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly	Ser	His	Val	Pro	Tyr	
					210					215					220	
Thr	Phe	Gly	Gly	Thr	Lys	Leu	Glu	Ile	Lys	Arg	Ala	Ala	Ala	His		
					225					230					240	
His	His	His	His	Gly	Ala	Ala	Glu	Gln	Lys	Leu	Ile	Ser	Glu	Glu		
					245					250					255	
Asp	Leu	Asn	Gly	Ala	Ala											
					260											

<210> 102
<211> 261
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 102
Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15
Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp	Leu	Gly	Trp	Val	Lys	Gln	Arg	Pro	Gly	His	Gly	Leu	Glu	Trp	Ile	
35							40						45			
Gly	Asp	Ile	Tyr	Pro	Gly	Gly	Gly	Tyr	Thr	Asn	Tyr	Asn	Glu	Lys	Phe	
50							55						60			
Lys	Gly	Lys	Ala	Thr	Leu	Thr	Ala	Asp	Thr	Ser	Ser	Ser	Thr	Ala	Tyr	
65					70					75					80	
Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Phe	Cys	
									85			90			95	
Ala	Tyr	Tyr	Asp	Ala	Ala	Gly	Pro	Gly	Phe	Ala	Tyr	Trp	Gly	Gln	Gly	
								100			105			110		
Thr	Thr	Val	Thr	Val	Ser	Ser	Ala	Ser	Ala	Asp	Ile	Gln	Met	Thr	Gln	
								115			120			125		
Thr	Pro	Leu	Ser	Leu	Pro	Val	Ser	Leu	Gly	Asp	Gln	Ala	Ser	Ile	Ser	
								130					140			
Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	
								145			150			155		160
Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser	Pro	Lys	Leu	Leu	Ile	Tyr	
								165			170				175	
Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	
								180			185			190		
Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala	Glu	
								195			200			205		
Asp	Leu	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly	Ser	His	Val	Pro	Tyr	Thr	
								210			215			220		
Phe	Gly	Gly	Gly	Thr	Lys	Leu	Glu	Ile	Lys	Arg	Ala	Ala	Ala	His	His	
								225			230			235		240
His	His	His	His	Gly	Ala	Ala	Glu	Gln	Lys	Leu	Ile	Ser	Glu	Glu	Asp	
								245			250				255	
Leu	Asn	Gly	Ala	Ala												
								260								

<210> 103
<211> 260
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 103
Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15

<210> 104
<211> 259
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 104
 Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Thr Val Thr Val Ser Ser Ala Asp Ile Gln Met Thr Gln Thr Pro
 115 120 125
 Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg
 130 135 140
 Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp
 145 150 155 160
 Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val
 165 170 175
 Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser
 180 185 190
 Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu
 195 200 205
 Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly
 210 215 220
 Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Ala Ala His His His His
 225 230 235 240
 His His Gly Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn
 245 250 255
 Gly Ala Ala

<210> 105
<211> 258
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 105

Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
35 40 45Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
65 70 75 80Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
100 105 110Thr Thr Val Thr Val Ser Ser Asp Ile Gln Met Thr Gln Thr Pro Leu
115 120 125Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser
130 135 140Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr
145 150 155 160Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser
165 170 175Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly
180 185 190Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly
195 200 205Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly
210 215 220Gly Thr Lys Leu Glu Ile Lys Arg Ala Ala Ala His His His His His
225 230 235 240His Gly Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn Gly
245 250 255

Ala Ala

<210> 106
<211> 257
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 106
Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Asp Ile Gln Met Thr Gln Thr Pro Leu Ser
115 120 125

Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser
130 135 140

Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu
145 150 155 160

Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn
165 170 175

Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr
180 185 190

Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val
195 200 205

Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly Gly
210 215 220

Thr Lys Leu Glu Ile Lys Arg Ala Ala Ala His His His His His His
225 230 235 240

Gly Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn Gly Ala
245 250 255

Ala

<210> 107

<211> 219

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 107

Asp Ile Val Ile Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
1 5 10 15Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
20 25 30Asn Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser
85 90 95Thr His Val Pro Tyr Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu
115 120 125Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe
130 135 140Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg
145 150 155 160Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser
165 170 175Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu
180 185 190Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser
195 200 205Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
210 215

<210> 108
<211> 219
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 108
Asp Ile Gln Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
1 5 10 15

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
20 25 30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80

Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
85 90 95

Ser His Val Pro Tyr Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu
115 120 125

Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe
130 135 140

Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg
145 150 155 160

Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser
165 170 175

Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu
180 185 190

Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser
195 200 205

Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
210 215

<210> 109
<211> 571
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 109

Gln	Val	Gln	Leu	Lys	Gln	Ser	Gly	Ala	Glu	Leu	Val	Arg	Pro	Gly	Thr
1					5				10					15	

Ser	Val	Lys	Ile	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Asn	Tyr
									25					30	

Trp	Leu	Gly	Trp	Val	Lys	Gln	Arg	Pro	Gly	His	Gly	Leu	Glu	Trp	Ile
							35	40					45		

Gly	Asp	Ile	Tyr	Pro	Gly	Gly	Ser	Tyr	Thr	Asn	Tyr	Asn	Glu	Lys	Phe
							50	55				60			

Lys	Gly	Lys	Ala	Thr	Leu	Thr	Ala	Asp	Thr	Ser	Ser	Ser	Thr	Ala	Tyr
					65		70		75				80		

Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Phe	Cys
							85		90				95		

Ala	Arg	Tyr	Asp	Asn	His	Tyr	Phe	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Thr
							100		105				110		

Leu	Thr	Val	Ser	Glu	Ser	Gln	Ser	Phe	Pro	Asn	Val	Phe	Pro	Leu	Val
							115		120			125			

Ser	Cys	Glu	Ser	Pro	Leu	Ser	Asp	Lys	Asn	Leu	Val	Ala	Met	Gly	Cys
							130		135			140			

Leu	Ala	Arg	Asp	Phe	Leu	Pro	Ser	Thr	Ile	Ser	Phe	Thr	Trp	Asn	Tyr
							145		150		155		160		

Gln	Asn	Asn	Thr	Glu	Val	Ile	Gln	Gly	Ile	Arg	Thr	Phe	Pro	Thr	Leu
							165		170			175			

Arg	Thr	Gly	Gly	Lys	Tyr	Leu	Ala	Thr	Ser	Gln	Val	Leu	Leu	Ser	Pro
							180		185			190			

Lys	Ser	Ile	Leu	Glu	Gly	Ser	Asp	Glu	Tyr	Leu	Val	Cys	Lys	Ile	His
							195		200			205			

Tyr	Gly	Gly	Lys	Asn	Arg	Asp	Leu	His	Val	Pro	Ile	Pro	Ala	Val	Ala
							210		215		220				

Glu	Met	Asn	Pro	Asn	Val	Asn	Val	Phe	Val	Pro	Pro	Arg	Asp	Gly	Phe
							225		230		235		240		

Ser	Gly	Pro	Ala	Pro	Arg	Lys	Ser	Lys	Leu	Ile	Cys	Glu	Ala	Thr	Asn
							245		250			255			

Phe	Thr	Pro	Lys	Pro	Ile	Thr	Val	Ser	Trp	Leu	Lys	Asp	Gly	Lys	Leu
							260		265			270			

Val	Glu	Ser	Gly	Phe	Thr	Thr	Asp	Pro	Val	Thr	Ile	Glu	Asn	Lys	Gly
							275		280			285			

Ser Thr Pro Gln Thr Tyr Lys Val Ile Ser Thr Leu Thr Ile Ser Glu
 290 295 300

Ile Asp Trp Leu Asn Leu Asn Val Tyr Thr Cys Arg Val Asp His Arg
 305 310 315 320

Gly Leu Thr Phe Leu Lys Asn Val Ser Ser Thr Cys Ala Ala Ser Pro
 325 330 335

Ser Thr Asp Ile Leu Thr Phe Thr Ile Pro Pro Ser Phe Ala Asp Ile
 340 345 350

Phe Leu Ser Lys Ser Ala Asn Leu Thr Cys Leu Val Ser Asn Leu Ala
 355 360 365

Thr Tyr Glu Thr Leu Asn Ile Ser Trp Ala Ser Gln Ser Gly Glu Pro
 370 375 380

Leu Glu Thr Lys Ile Lys Ile Met Glu Ser His Pro Asn Gly Thr Phe
 385 390 395 400

Ser Ala Lys Gly Val Ala Ser Val Cys Val Glu Asp Trp Asn Asn Arg
 405 410 415

Lys Glu Phe Val Cys Thr Val Thr His Arg Asp Leu Pro Ser Pro Gln
 420 425 430

Lys Lys Phe Ile Ser Lys Pro Asn Glu Val His Lys His Pro Pro Ala
 435 440 445

Val Tyr Leu Leu Pro Pro Ala Arg Glu Gln Leu Asn Leu Arg Glu Ser
 450 455 460

Ala Thr Val Thr Cys Leu Val Lys Gly Phe Ser Pro Ala Asp Ile Ser
 465 470 475 480

Val Gln Trp Leu Gln Arg Gly Gln Leu Leu Pro Gln Glu Lys Tyr Val
 485 490 495

Thr Ser Ala Pro Met Pro Glu Pro Gly Ala Pro Gly Phe Tyr Phe Thr
 500 505 510

His Ser Ile Leu Thr Val Thr Glu Glu Glu Trp Asn Ser Gly Glu Thr
 515 520 525

Tyr Thr Cys Val Val Gly His Glu Ala Leu Pro His Leu Val Thr Glu
 530 535 540

Arg Thr Val Asp Lys Ser Thr Gly Lys Pro Thr Leu Tyr Asn Val Ser
 545 550 555 560

Leu Ile Met Ser Asp Thr Gly Gly Thr Cys Tyr
 565 570

<210> 110
<211> 573
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 110
Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Glu Ser Gln Ser Phe Pro Asn Val Phe Pro
115 120 125

Leu Val Ser Cys Glu Ser Pro Leu Ser Asp Lys Asn Leu Val Ala Met
130 135 140

Gly Cys Leu Ala Arg Asp Phe Leu Pro Ser Thr Ile Ser Phe Thr Trp
145 150 155 160

Asn Tyr Gln Asn Asn Thr Glu Val Ile Gln Gly Ile Arg Thr Phe Pro
165 170 175

Thr Leu Arg Thr Gly Gly Lys Tyr Leu Ala Thr Ser Gln Val Leu Leu
180 185 190

Ser Pro Lys Ser Ile Leu Glu Gly Ser Asp Glu Tyr Leu Val Cys Lys
195 200 205

Ile His Tyr Gly Gly Lys Asn Arg Asp Leu His Val Pro Ile Pro Ala
210 215 220

Val Ala Glu Met Asn Pro Asn Val Asn Val Phe Val Pro Pro Arg Asp
225 230 235 240

Gly Phe Ser Gly Pro Ala Pro Arg Lys Ser Lys Leu Ile Cys Glu Ala
245 250 255

Thr Asn Phe Thr Pro Lys Pro Ile Thr Val Ser Trp Leu Lys Asp Gly
 260 265 270

Lys Leu Val Glu Ser Gly Phe Thr Thr Asp Pro Val Thr Ile Glu Asn
 275 280 285

Lys Gly Ser Thr Pro Gln Thr Tyr Lys Val Ile Ser Thr Leu Thr Ile
 290 295 300

Ser Glu Ile Asp Trp Leu Asn Leu Asn Val Tyr Thr Cys Arg Val Asp
 305 310 315 320

His Arg Gly Leu Thr Phe Leu Lys Asn Val Ser Ser Thr Cys Ala Ala
 325 330 335

Ser Pro Ser Thr Asp Ile Leu Thr Phe Thr Ile Pro Pro Ser Phe Ala
 340 345 350

Asp Ile Phe Leu Ser Lys Ser Ala Asn Leu Thr Cys Leu Val Ser Asn
 355 360 365

Leu Ala Thr Tyr Glu Thr Leu Asn Ile Ser Trp Ala Ser Gln Ser Gly
 370 375 380

Glu Pro Leu Glu Thr Lys Ile Lys Ile Met Glu Ser His Pro Asn Gly
 385 390 395 400

Thr Phe Ser Ala Lys Gly Val Ala Ser Val Cys Val Glu Asp Trp Asn
 405 410 415

Asn Arg Lys Glu Phe Val Cys Thr Val Thr His Arg Asp Leu Pro Ser
 420 425 430

Pro Gln Lys Lys Phe Ile Ser Lys Pro Asn Glu Val His Lys His Pro
 435 440 445

Pro Ala Val Tyr Leu Leu Pro Pro Ala Arg Glu Gln Leu Asn Leu Arg
 450 455 460

Glu Ser Ala Thr Val Thr Cys Leu Val Lys Gly Phe Ser Pro Ala Asp
 465 470 475 480

Ile Ser Val Gln Trp Leu Gln Arg Gly Gln Leu Leu Pro Gln Glu Lys
 485 490 495

Tyr Val Thr Ser Ala Pro Met Pro Glu Pro Gly Ala Pro Gly Phe Tyr
 500 505 510

Phe Thr His Ser Ile Leu Thr Val Thr Glu Glu Glu Trp Asn Ser Gly
 515 520 525

Glu Thr Tyr Thr Cys Val Val Gly His Glu Ala Leu Pro His Leu Val
 530 535 540

Thr Glu Arg Thr Val Asp Lys Ser Thr Gly Lys Pro Thr Leu Tyr Asn
 545 550 555 560

Val Ser Leu Ile Met Ser Asp Thr Gly Gly Thr Cys Tyr
 565 570

<210> 111
<211> 448
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 111
Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Gly Ser Thr Lys Gly Pro Ser Val Phe Pro
 115 120 125

Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly
 130 135 140

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
 145 150 155 160

Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln
 165 170 175

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
 180 185 190

Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
 195 200 205

Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr
 210 215 220

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
 225 230 235 240

Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
 245 250 255
 Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
 260 265 270
 Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
 275 280 285
 Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val
 290 295 300
 Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
 305 310 315 320
 Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
 325 330 335
 Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
 340 345 350
 Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys
 355 360 365
 Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
 370 375 380
 Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp
 385 390 395 400
 Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser
 405 410 415
 Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
 420 425 430
 Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 435 440 445

<210> 112
 <211> 571
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 112
 Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Gly Ser Ala Ser Ala Pro Thr Leu Phe Pro
 115 120 125

Leu Val Ser Cys Glu Asn Ser Pro Ser Asp Thr Ser Ser Val Ala Val
 130 135 140

Gly Cys Leu Ala Gln Asp Phe Leu Pro Asp Ser Ile Thr Leu Ser Trp
 145 150 155 160

Lys Tyr Lys Asn Asn Ser Asp Ile Ser Ser Thr Arg Gly Phe Pro Ser
 165 170 175

Val Leu Arg Gly Gly Lys Tyr Ala Ala Thr Ser Gln Val Leu Leu Pro
 180 185 190

Ser Lys Asp Val Met Gln Gly Thr Asp Glu His Val Val Cys Lys Val
 195 200 205

Gln His Pro Asn Gly Asn Lys Glu Lys Asn Val Pro Leu Pro Val Ile
 210 215 220

Ala Glu Leu Pro Pro Lys Val Ser Val Phe Val Pro Pro Arg Asp Gly
 225 230 235 240

Phe Phe Gly Asn Pro Arg Lys Ser Lys Leu Ile Cys Gln Ala Thr Gly
 245 250 255

Phe Ser Pro Arg Gln Ile Gln Val Ser Trp Leu Arg Glu Gly Lys Gln
 260 265 270

Val Gly Ser Gly Val Thr Thr Asp Gln Val Gln Ala Glu Ala Lys Glu
 275 280 285

Ser Gly Pro Thr Thr Tyr Lys Val Thr Ser Thr Leu Thr Ile Lys Glu
 290 295 300

Ser Asp Trp Leu Gly Gln Ser Met Phe Thr Cys Arg Val Asp His Arg
 305 310 315 320

Gly Leu Thr Phe Gln Gln Asn Ala Ser Ser Met Cys Val Pro Asp Gln
 325 330 335

Asp Thr Ala Ile Arg Val Phe Ala Ile Pro Pro Ser Phe Ala Ser Ile
 340 345 350

 Phe Leu Thr Lys Ser Thr Lys Leu Thr Cys Leu Val Thr Asp Leu Thr
 355 360 365

 Thr Tyr Asp Ser Val Thr Ile Ser Trp Thr Arg Gln Asn Gly Glu Ala
 370 375 380

 Val Lys Thr His Thr Asn Ile Ser Glu Ser His Pro Asn Ala Thr Phe
 385 390 395 400

 Ser Ala Val Gly Glu Ala Ser Ile Cys Glu Asp Asp Trp Asn Ser Gly
 405 410 415

 Glu Arg Phe Thr Cys Thr Val Thr His Thr Asp Leu Pro Ser Pro Leu
 420 425 430

 Lys Gln Thr Ile Ser Arg Pro Lys Gly Val Ala Leu His Arg Pro Asp
 435 440 445

 Val Tyr Leu Leu Pro Pro Ala Arg Glu Gln Leu Asn Leu Arg Glu Ser
 450 455 460

 Ala Thr Ile Thr Cys Leu Val Thr Gly Phe Ser Pro Ala Asp Val Phe
 465 470 475 480

 Val Gln Trp Met Gln Arg Gly Gln Pro Leu Ser Pro Glu Lys Tyr Val
 485 490 495

 Thr Ser Ala Pro Met Pro Glu Pro Gln Ala Pro Gly Arg Tyr Phe Ala
 500 505 510

 His Ser Ile Leu Thr Val Ser Glu Glu Glu Trp Asn Thr Gly Glu Thr
 515 520 525

 Tyr Thr Cys Val Val Ala His Glu Ala Leu Pro Asn Arg Val Thr Glu
 530 535 540

 Arg Thr Val Asp Lys Ser Thr Gly Lys Pro Thr Leu Tyr Asn Val Ser
 545 550 555 560

 Leu Val Met Ser Asp Thr Ala Gly Thr Cys Tyr
 565 570

<210> 113
 <211> 219
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 113
 Asp Ile Gln Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1 5 10 15

Asp	Gln	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser
				20				25						30	
Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser
				35				40				45			
Pro	Lys	Leu	Leu	Ile	Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro
				50			55				60				
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
				65			70			75				80	
Ser	Arg	Val	Glu	Ala	Glu	Asp	Leu	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly
				85				90					95		
Ser	His	Val	Pro	Tyr	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Glu	Ile	Lys
				100				105					110		
Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp	Glu
				115			120					125			
Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn	Phe
				130			135				140				
Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn	Ala	Leu	Gln
				145			150			155			160		
Ser	Gly	Asn	Ser	Gln	Glu	Ser	Val	Thr	Glu	Gln	Asp	Ser	Lys	Asp	Ser
				165				170				175			
Thr	Tyr	Ser	Leu	Ser	Ser	Thr	Leu	Thr	Leu	Ser	Lys	Ala	Asp	Tyr	Glu
				180				185				190			
Lys	His	Lys	Val	Tyr	Ala	Cys	Glu	Val	Thr	His	Gln	Gly	Leu	Ser	Ser
				195				200				205			
Pro	Val	Thr	Lys	Ser	Phe	Asn	Arg	Gly	Glu	Cys					
				210				215							

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<210> 114
<211> 63
<212> DNA
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<220>
<221> CDS
<222> (1)..(63)

<400> 114

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acg gtc acc gtc tcc tca gcc tcg agt ggc tcg ggc tca tct gca gat
Thr Val Thr Val Ser Ser Ala Ser Ser Gly Ser Gly Ser Ser Ala Asp
   1           5           10          .          15

```

atc cag atg aca cag
Ile Gln Met Thr Gln
20

<210> 115
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 115
Thr Val Thr Val Ser Ser Ala Ser Ser Gly Ser Gly Ser Ser Ala Asp
1 5 10 15

Ile Gln Met Thr Gln
20

<210> 116
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> CDS
<222> (1)..(60)

<400> 116
acg gtc acc gtc tcc tca gcc tcg agt ggc ggc tca tct gca gat atc
Thr Val Thr Val Ser Ser Ala Ser Ser Gly Gly Ser Ser Ala Asp Ile
1 5 10 15

cag atg aca cag
Gln Met Thr Gln
20

60

<210> 117
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 117
Thr Val Thr Val Ser Ser Ala Ser Ser Gly Gly Ser Ser Ala Asp Ile
1 5 10 15

63

Gln Met Thr Gln
20

<210> 118
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> CDS
<222> (1)..(57)

<400> 118
acg gtc acc gtc tcc tca gcc tcg agt ggc tca tct gca gat atc cag 48
Thr Val Thr Val Ser Ser Ala Ser Ser Gly Ser Ser Ala Asp Ile Gln
1 5 10 15

atg aca cag 57
Met Thr Gln

<210> 119
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 119
Thr Val Thr Val Ser Ser Ala Ser Ser Gly Ser Ser Ala Asp Ile Gln
1 5 10 15

Met Thr Gln

<210> 120
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> CDS
<222> (1)..(54)

<400> 120
 acg gtc acc gtc tcc tca gcc tcg agt tca tct gca gat atc cag atg 48
 Thr Val Thr Val Ser Ser Ala Ser Ser Ser Ala Asp Ile Gln Met
 1 5 10 15

aca cag 54
 Thr Gln

<210> 121
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 121
 Thr Val Thr Val Ser Ser Ala Ser Ser Ser Ala Asp Ile Gln Met
 1 5 10 15

Thr Gln

<210> 122
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
 <221> CDS
 <222> (1)..(51)

<400> 122
 acg gtc acc gtc tcc tca gcc tcg agt tct gca gat atc cag atg aca 48
 Thr Val Thr Val Ser Ser Ala Ser Ser Ser Ala Asp Ile Gln Met Thr
 1 5 10 15

cag 51
 Gln

<210> 123
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 123
Thr Val Thr Val Ser Ser Ala Ser Ser Ser Ala Asp Ile Gln Met Thr
1 5 10 15

Gln

<210> 124
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<220>
<221> CDS
<222> (1)..(48)

<400> 124
acg gtc acc gtc tcc tca gcc tcg agt gca gat atc cag atg aca cag 48
Thr Val Thr Val Ser Ser Ala Ser Ser Ala Asp Ile Gln Met Thr Gln
1 5 10 15

<210> 125
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 125
Thr Val Thr Val Ser Ser Ala Ser Ser Ala Asp Ile Gln Met Thr Gln
1 5 10 15

<210> 126
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<220>
<221> CDS
<222> (1)..(45)

<400> 126
 acg gtc acc gtc tcc tca gcc tcg gcc gat atc cag atg aca cag 45
 Thr Val Thr Val Ser Ser Ala Ser Ala Asp Ile Gln Met Thr Gln
 1 5 10 15

<210> 127
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 127
 Thr Val Thr Val Ser Ser Ala Ser Ala Asp Ile Gln Met Thr Gln 45
 1 5 10 15

<210> 128
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> CDS
<222> (1)..(42)

<400> 128
 acg gtc acc gtc tcc tca gcc gcc gat atc cag atg aca cag 42
 Thr Val Thr Val Ser Ser Ala Ala Asp Ile Gln Met Thr Gln
 1 5 10

<210> 129
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 129
 Thr Val Thr Val Ser Ser Ala Ala Asp Ile Gln Met Thr Gln 42
 1 5 10

<210> 130
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<220>
<221> CDS
<222> (1)..(39)

<400> 130
acg gtc acc gtc tcc tca gcc gat atc cag atg aca cag
Thr Val Thr Val Ser Ser Ala Asp Ile Gln Met Thr Gln
1 5 10

39

<210> 131
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 131
Thr Val Thr Val Ser Ser Ala Asp Ile Gln Met Thr Gln
1 5 10

<210> 132
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<220>
<221> CDS
<222> (1)..(36)

<400> 132
acg gtc acc gtc tcc tca gat atc cag atg aca cag
Thr Val Thr Val Ser Ser Asp Ile Gln Met Thr Gln
1 5 10

36

<210> 133
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 133
Thr Val Thr Val Ser Ser Asp Ile Gln Met Thr Gln
1 5 10

<210> 134
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> CDS
<222> (1)..(33)

<400> 134
acg gtc acc gtc tcc gat atc cag atg aca cag 33.
Thr Val Thr Val Ser Asp Ile Gln Met Thr Gln
1 5 10

<210> 135
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 135
Thr Val Thr Val Ser Asp Ile Gln Met Thr Gln
1 5 10

<210> 136
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic 6xHis tag

<400> 136
His His His His His His
1 5

<210> 137
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Syntetic
oligonucleotide

<400> 137
aattggatcc gagcccagac actggac

27

<210> 138
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Syntetic
oligonucleotide

<400> 138
accgtctaga cgcaactcatt taccgg

27

<210> 139
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Syntetic
oligonucleotide

<400> 139
acctggatcc gcttaggaaga aactcaaaac

30

<210> 140
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Syntetic
oligonucleotide

<400> 140
accgtctaga ccctctaaca ctctccccctg

30

<210> 141
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Syntetic
oligonucleotide

<400> 141
atcgggatcc gatagccatg acagtctg

28

<210> 142
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 142
agcgtctaga cagggtcagt agcagg

<210> 143
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (1)
<223> Gln or Glu

<220>
<221> MOD_RES
<222> (3)
<223> Gln, Lys or Thr

<220>
<221> MOD_RES
<222> (5)
<223> Lys or Val

<220>
<221> MOD_RES
<222> (6)
<223> Glu or Gln

<220>
<221> MOD_RES
<222> (11)
<223> Leu or Val

<220>
<221> MOD_RES
<222> (12)
<223> Val or Lys

<220>
<221> MOD_RES
<222> (13)
<223> Arg or Lys

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<220>
<221> MOD_RES
<222> (16)
<223> Thr or Ala

<220>
<221> MOD_RES
<222> (20)
<223> Ile or Val

<220>
<221> MOD_RES
<222> (21)
<223> Ser or Pro

<220>
<221> MOD_RES
<222> (24)
<223> Ala, Val, Ser or Thr

<220>
<221> MOD_RES
<222> (27)
<223> Tyr, Phe, Ser or Asp

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Ser Val Lys Xaa Xaa Cys Lys Xaa Ser Gly Xaa Thr Xaa Thr
    20          25          30

<210> 144
<211> 14
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<213> Artificial Sequence

<220>
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<223> Arg or Ala

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<223> Trp or Arg

<220>
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<222> (13)
<223> Ile or Met

<400> 144
Trp Val Xaa Gln Xaa Pro Gly Xaa Gly Leu Glu Xaa Xaa Gly
      1           5           10

<210> 145
<211> 32
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<220>
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<223> Phe or Tyr

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<223> Tyr, Lys or Arg

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Xaa Xaa Thr Xaa Thr Xaa Asp Thr Ser Xaa Ser Thr Ala Tyr Met Xaa
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Leu Ser Xaa Leu Xaa Ser Glu Asp Xaa Ala Val Tyr Xaa Cys Ala Xaa
    20          25          30

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Xaa Xaa Ala Ser Ile Ser Cys
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<400> 149
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Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Xaa Gly Val Tyr Tyr Cys
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<211> 119
<212> PRT
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 20 25 30
 Xaa Xaa Xaa Trp Val Xaa Gln Xaa Pro Gly Xaa Gly Leu Glu Xaa Xaa
 35 40 45
 Gly Xaa
 50 55 60
 Xaa Xaa Xaa Xaa Thr Xaa Thr Xaa Asp Thr Ser Xaa Ser Thr Ala Tyr
 65 70 75 80
 Met Xaa Leu Ser Xaa Leu Xaa Ser Glu Asp Xaa Ala Val Tyr Xaa Cys
 85 90 95
 Ala Xaa Trp Gly Gln Gly
 100 105 110
 Thr Xaa Xaa Thr Val Ser Xaa
 115

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Xaa Xaa Ala Ser Ile Ser Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45

Pro Xaa Leu Leu Xaa Tyr Xaa Xaa Xaa Xaa Xaa Xaa Gly Val Pro
50 55 60

Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80

Ser Arg Val Glu Ala Glu Asp Xaa Gly Val Tyr Tyr Cys Xaa Xaa Xaa
85 90 95

Xaa Xaa Xaa Xaa Xaa Xaa Phe Gly Xaa Gly Thr Lys Leu Glu Xaa Lys
100 105 110

Arg Ala